WHAT IS CLAIMED IS:

1. A method for manufacturing nanophase TiC-based composite powders by means of metallothermic reduction, comprising the steps of:

preparing a starting solution of titanium tetrachloride ($TiCl_4$) in a carbon chloride;

feeding the starting solution into a closed container containing molten magnesium (Mg) under inert atmosphere;

vacuum-separating unreacted liquid-phase Mg and magnesium chloride ($MgCl_2$) remaining after reduction of magnesium from the closed container; and

collecting a TiC compound from the closed container.

2. The method for manufacturing nanophase TiC-based composite powders by means of metallothermic reduction according to claim 1, wherein in the step of preparing a starting solution of titanium tetrachloride ($TiCl_4$) in a carbon chloride, the carbon chloride is carbon tetrachloride (CCl_4) or tetrachloroethylene (C_2Cl_4).

3. The method for manufacturing nanophase TiC-based composite powders by means of metallothermic reduction according to claim 1 or 2, wherein in the step of preparing a starting solution of titanium tetrachloride ($TiCl_4$) in a

carbon chloride, the carbon chloride (CCl_4 or C_2Cl_4) is used in an amount of 1.05~1.15 moles, relative to one mole of titanium tetrachloride ($TiCl_4$).

4. The method for manufacturing nanophase TiC-based composite powders by means of metallothermic reduction according to claim 1, wherein in the step of feeding the starting solution into a closed container containing molten magnesium (Mg) under inert atmosphere, the feeding of the starting solution is controlled at a rate of 10~20g/min.

5. The method for manufacturing nanophase TiC-based composite powders by means of metallothermic reduction according to claim 1, wherein the inert atmosphere of the closed container containing molten magnesium (Mg) is created by heating at 200℃ under vacuum for 1 hour, feeding argon gas at 1.1 atm, and heating to a temperature of above 1000℃.

6. The method for manufacturing nanophase TiC-based composite powders by means of metallothermic reduction according to claim 1, wherein the molten magnesium (Mg) contained in the closed container under inert atmosphere is used in an amount of 8~14 moles, relative to one mole of the starting solution.

7. The method for manufacturing nanophase TiC-based composite powders by means of metallothermic reduction according to claim 1, wherein the molten magnesium (Mg) contained in the closed container under inert atmosphere further includes at least one metal selected from nickel (Ni), cobalt (Co) and aluminum (Al).

8. A method for manufacturing nanophase TiC-based composite powders by means of metallothermic reduction, comprising the steps of:

preparing a starting solution of titanium tetrachloride ($TiCl_4$) in a carbon chloride;

feeding the starting solution into a closed container containing molten magnesium (Mg) under nitrogen (N_2) atmosphere;

vacuum-separating unreacted liquid-phase Mg and magnesium chloride ($MgCl_2$) remaining after reduction of magnesium from the closed container; and

collecting a TiCN compound from the closed container.

9. The method for manufacturing nanophase TiC-based composite powders by means of metallothermic reduction according to claim 8, wherein in the step of preparing a starting solution of titanium tetrachloride ($TiCl_4$) in a carbon chloride, the carbon chloride is carbon tetrachloride

(CCl_4) or tetrachloroethylene (C_2Cl_4).

10. The method for manufacturing nanophase TiC-based composite powders by means of metallothermic reduction according to claim 8 or 9, wherein in the step of preparing a starting solution of titanium tetrachloride ($TiCl_4$) in a carbon chloride, the carbon chloride (CCl_4 or C_2Cl_4) is used in an amount of 1.05~1.15 moles, relative to one mole of titanium tetrachloride ($TiCl_4$).

11. The method for manufacturing nanophase TiC-based composite powders by means of metallothermic reduction according to claim 8, wherein in the step of feeding the starting solution into a closed container containing molten magnesium (Mg) under nitrogen (N_2) atmosphere, the feeding of the starting solution is controlled at a rate of 10~20g/min.

12. The method for manufacturing nanophase TiC-based composite powders by means of metallothermic reduction according to claim 8, wherein the nitrogen (N_2) atmosphere of the closed container containing molten magnesium (Mg) is created by heating at 200℃ under vacuum for 1 hour, feeding nitrogen (N_2) gas at 1.1 atm, and heating to a temperature of above 900℃.

13. The method for manufacturing nanophase TiC-based composite powders by means of metallothermic reduction according to claim 8, wherein the molten magnesium (Mg) contained in the closed container under nitrogen (N_2) atmosphere is used in an amount of 8~14 moles, relative to one mole of the starting solution.

14. The method for manufacturing nanophase TiC-based composite powders by means of metallothermic reduction according to claim 8, wherein the molten magnesium (Mg) contained in the closed container under nitrogen (N_2) atmosphere further includes at least one metal selected from nickel (Ni), cobalt (Co) and aluminum (Al).